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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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| 09/640,724 | 08/18/2000 | Izumi Tsukamoto | 684.3054 | 6397 |

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EXAMINER

KIM, PETER B

ART UNIT PAPER NUMBER

2851

DATE MAILED: 03/22/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

09/640,724

Applicant(s)

TSUKAMOTO ET AL.

Examiner

Peter B Kim

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-52 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-52 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 18 August 2000 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on ____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). ____.
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 5. 6) ☐ Other: ____.

DETAILED ACTION

Drawings

1. Figure 31 should be designated by a legend such as --Prior Art-- because only that which is old is illustrated. See MPEP § 608.02(g). A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.
2. The drawings are objected to because ref 2 disclosed on page 18 of the specification is not shown in Figure 1A.

A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) do not apply to the examination of this application as the application being examined was not (1) filed on or after November 29, 2000, or (2) voluntarily

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published under 35 U.S.C. 122(b). Therefore, this application is examined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

4. Claims 1-7, 9-20, 22-27, 32, are 33 rejected under 35 U.S.C. 102(e) as being anticipated by Masuyuki et al. (Masuyuki) (6,137,562).

Masuyuki discloses a substrate attracting and holding method and system with a holding table (26) for holding a substrate (WB), a protrusion (70) provided on the holding table and the protrusion being disposed to be placed in a predetermined positional relationship with a position of an alignment mark (col. 3, lines 42 – col. 4, line 3). The protrusion has an attracting groove for attracting the substrate (Fig. 3), and vacuum pressure or negative pressure is applied to hold the substrate (Fig. 4, col. 4, lines 50-65). Masuyuki also discloses the alignment mark produced above the protrusion (Fig. 2) and valves to electrically control the pressure (col. 5, lines 10-18). Masuyuki also discloses exposure means for transferring a pattern of an original to a substrate (Fig. 2).

5. Claims 41 and 42 are rejected under 35 U.S.C. 102(b) as being anticipated by Yoshio et al. (Yoshio) (JP 1129438).

Yoshio discloses in the abstract and in Fig. 1, a substrate attracting and holding system with a plurality of protrusion where the pitch of the protrusion in the central region has a large pitch than the protrusion in the peripheral region, and the attraction force of the central protrusion is smaller (5) than the peripheral region (7).

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 8, and 21 rejected under 35 U.S.C. 103(a) as being unpatentable over Masuyuki et al. (Masuyuki) in view of Takabayashi.

Masuyuki discloses the claimed invention as discussed above, however, Masuyuki does not disclose the protrusion of a pin contact type. Takabayashi discloses in Figure 2, protrusion of a pin contact type. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to provide provide the pin contact type of protrusion to the invention of Masuyuki in order to further decrease the contact area.

8. Claims 34-40 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yoshio et al. (Yoshio) (JP 1129438).

Yoshio discloses in the abstract and in Fig. 1, a substrate attracting and holding system with a plurality of protrusion where the pitch of the protrusion in the central region has a large pitch than the protrusion in the peripheral region, and the attraction force of the central protrusion is smaller (5) than the peripheral region (7). Although Yoshio does not disclose the exact relationships in the claims, it would be obvious to one with ordinary skill in the art to obtain the relationship based on the relationships

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disclosed Yoshio in order to obtain proper pitch and pressure needed to support and attract the substrate.

9. Claims 43-52 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yoshio et al. (Yoshio) in view of Takabayashi.

Yoshio discloses the claimed invention as discussed above, however, Yoshio does not disclose shaping the free end of the protrusion and the exposure means. Takabayashi discloses in Fig. 1, exposure means for transferring a pattern of an original to a substrate. Takabayashi also discloses in col. 7, lines 5-55, shaping the free end of the protrusion. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to provide the exposure means and the protrusion of Takabayashi to the invention of Yoshio in order to provide improved attraction and support for the substrate and to provide the device manufactured by the exposure means.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Peter Kim whose telephone number is (703) 305-0105. The examiner can normally be reached on Monday-Thursday from 6:30 AM to 4:00 PM. The examiner can also be reached on alternate Fridays during the same hours.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Russ Adams, can be reached on (703) 308-2847. Any inquiry of a general

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nature or relating to the status of this application or proceeding should be directed to the
Group receptionist whose telephone number is (703) 308-0956.

PBK

PBK

3/13/02



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